

REMARKS

I. Introduction

In response to the Office Action dated February 6, 2006, claims 2, 8, 13 and 14 have been canceled, and claims 1, 9 and 15 have been amended. Claims 1, 3-7, 9-12 and 15-45 remain in the application. Re-examination and re-consideration of the application, as amended, is requested.

II. Non-Art Rejections

In paragraphs (2)-(3) of the Office Action, claims 1-15 were rejected under 35 U.S.C. §112, first paragraph, as failing to comply with the written description requirement, with regard to the terms "selector function," "selection criteria," or "attributes" is present.

Applicant's attorney respectfully traverses these rejections.

First, Applicant's attorney notes that these rejections have never been raised before, even though these claims have been examined and an appeal filed. Consequently, Applicant's attorney submits that these rejections are improper, at this late date.

In addition, Applicant's attorney asserts that the specification does set forth an enabling written description of the terms "selector function," "selection criteria," or "attributes."

Consider, for example, the description at page 12, line 10 et seq. of the terms related to these terms:

PARALLEL PROCESSING OF A SELECTOR FUNCTION

FIG. 3 illustrates a Selector function 300 included in the Value Analyzer system according to the preferred embodiment of the present invention. Within the Value Analyzer Calculation Engine 104, the Selector function 300 selects accounts and events from the relational database managed by the RDBMS 106 in order to generate a number of inputs for the Profitability Calculations 200, including Account Attributes 202 and Event Attributes 204. Because of the limited amount of data associated with the Organization Attributes 206 and Profit Factors 208, these inputs to the Profitability Calculations 200 do not require the capabilities of the Selector function 300, although the Selector function 300 could be used with these inputs as well.

Selection Criteria

In the Value Analyzer system, the Selector function 300 uses one or more sets of Selection Criteria 302 to determine which accounts and events should be processed. In the preferred embodiment, the following types of Selection Criteria 302 may be used:

- Product Groups;
- Balance Types;
- Account Event Groups;
- Master Account Event Groups;
- Account Attributes; and
- Master Account Attributes.

Other types of Selection Criteria 302 may be used as well.

The Selection Criteria 302 may comprise attributes, predicates, operators and/or functions, wherein a group of accounts or events that satisfy the Selection Criteria 302 comprise partitions. For example, it is possible to compare an account attribute (i.e., a column) to another account attribute, a literal value, or a domain value (which is an indirect reference to a literal value that is resolved by a lookup function). Operators may include any number of different relational operators, i.e., =, >=, <=, <, >, BETWEEN, etc., and functions may comprise aggregate or other functions.

The Selection Criteria 302 may also include dynamic event attributes. For example, multiple event attributes may be defined for each account. The event attribute definition can vary both in the number of event attributes used to identify account events, and in the identity of the event attributes. This means that the selection of accounts having specific combinations of event attributes is dynamic, rather than static.

Consider, in another example, the description at page 14, line 28 et seq. of the terms related to these terms:

Operation

Using the Selection Criteria 302 for each of the components, the Selector function 300 dynamically generates SQL statements to select the proper accounts and events from an account table and event log table in the relational database. The account table contains all of the accounts at a financial institution, and the event log table contains all of the account events or transactions that occurred during a specified period at the financial institution.

The Selector function 300 can perform parallel processing of the Selection Criteria 302, which allows the Selector function 300 to optimize the selection of accounts and events. Using this process, similar Selection Criteria 302 are grouped together and processed independently and in parallel by the RDBMS 106, and the results therefrom are stored in temporary work tables.

The Selector function 300 uses one or more parameterized templates to dynamically generate the SQL statements. This parameterized template typically comprises a join of (potentially) multiple tables within the relational database to a constraint table (storing the Selection Criteria 302) and an in-list table (storing IN clauses for the SQL templates). Both the constraint and in-list tables are created and populated from the Selection Criteria 302.

Specifically, there are several very important steps in generating the SQL statements:

1. Substantially similar Selection Criteria 302 are grouped in order to combine them into one account-partitioning set of SQL statements. In this context, "similar" does not necessarily mean identical, e.g., certain Selection Criteria 302 are considered identical for the grouping function and are later altered to match the original SQL statements.
2. Once the Selection Criteria 302 are grouped, it is necessary to convert and/or combine some of the Selection Criteria 302 in order to ensure that every Selection Criteria 302 can be expressed in the fewest number of templates.
3. One or more constraint tables are created and populated for each group of Selection Criteria 302.
4. One or more in-list tables are created and populated for all groups of Selection Criteria 302.

Moreover, the term "attribute" is well known in the art. For example, the "computing dictionary" at www.computing-dictionary.thefreedictionary.com defines "attribute" as

"In relational database management, a field within a record."

In view of the above, Applicant's attorney submits that the claims are fully enabled and completely described in accordance with 35 U.S.C. §112, first paragraph. Consequently, Applicant's attorney requests that the rejections be withdrawn.

III. Prior Art Rejections

In paragraphs (4)-(5) of the Office Action, claims 1-15 were rejected under 35 U.S.C. §103(a) as being unpatentable over Graff, U.S. Patent No. 5,802,501.

Applicant's attorney respectfully traverses these rejections.

Graff merely describes a data processing system applied to the financial fields of securities, real estate, and taxation. More particularly, Graff describes a computer system for supporting a financial innovation involving the securitization of property by its decomposition into at least two components. One component can be an estate for years component and a second component can be a remainder interest. The computer system computes the respective values and investment characteristics of the components, and produces documentation thereof, to facilitate financial transactions involving the separate components.

However, Graff lacks any discussion about a selector function that uses one or more selection criteria to determine which accounts and events should be selected from the database, wherein the selector function dynamically generates SQL statements to select the accounts and

events from the database using the selection criteria, the selection criteria are grouped in order to combine them in the dynamically generated SQL statements, the grouped selection criteria are processed independently and in parallel to create temporary work tables, and the temporary work tables are combined to yield output tables comprising attributes of the accounts and events selected from the database. In addition, Graff lacks any discussion about performing profitability calculations using the attributes of the accounts and events selected from the database.

Indeed, the Office Action acknowledged that Graff did not specifically disclose a selector function, even before these latest amendments set forth above. Nonetheless, the Office Action asserted that a selector function would have been common knowledge in the art, and that to have provided such for Graff would have been obvious to one of ordinary skill in the art.

Applicant's attorney respectfully submits that the independent claims have been sufficiently amended to distinguish Applicant's selector function from any function described by Graff or forming part of the "common knowledge in the art." Specifically, neither Graff nor the "common knowledge in the art" teach or suggest the claimed dynamic generation of SQL statements, the grouping of selection criteria, the independent and parallel processing of the grouped selection criteria, or the combining of the temporary work tables to yield output tables comprising attributes of the accounts and events selected from the database.

Applicant's claimed invention provides operational advantages over the system disclosed in Graff in view of "common knowledge." Graff reflects a very specific kind of financial calculation involving the securitization of property. Applicant's invention, on the other hand, describes a different, more sophisticated model for implementing profitability calculations in a computer system using a relational database, dynamically generated SQL, grouped selection criteria, and parallel processing. Graff fails to teach or suggest any of these elements, or the relationships between the various elements.

Thus, Applicant's attorney submits that independent claim 1 is allowable over Graff. Further, dependent claims 3-7, 9-12 and 15 are submitted to be allowable over Graff in the same manner, because they are dependent on independent claim 1, respectively, and thus contain all the limitations of the independent claim. In addition, dependent claims 1, 3-7, 9-12 and 15 recite additional novel elements not shown by Graff.

IV. Conclusion

In view of the above, it is submitted that this application is now in good order for allowance and such allowance is respectfully solicited. Should the Examiner believe minor matters still remain that can be resolved in a telephone interview, the Examiner is urged to call Applicant's undersigned attorney.

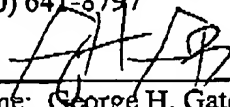
Respectfully submitted,

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